

Oil Refinery Wastewater Treatment

Refineries normally use emulsion breakers/coagulants and flocculants to remove the oil from the API and DAF (DNF) units. These conventional chemicals work adequately as long as the oil levels in the wastewater is consistent. Usually, there are swings in the oil concentration and carry through to the biological system down stream of the DAF. Recovery of the oil up to the biological system saves the refinery money, after the DAF, it requires aeration horsepower with the biomass to remove the oil.



Using the Floc products in the DAF allows for a wider swing in oil concentration and improved oil/water separation as the Floc has a high affinity for oil. In addition, the Floc removes heavy metals such as selenium, vanadium, nickel and others common in refinery wastewater. This reduction and control of the oil going to the secondary aeration process saves the refinery money by improved recovered BTU sludge, which is returned to the refinery processes as slop oil or to the coker. In addition, the reduction in the

load of oil to the biological process reduces labor, sludge disposal, aeration horsepower and can solve compliance issues.

